

CLAIMS

What is claimed is:

1. A sealing system for safely positioning electronic equipment proximate to a body of water, said sealing system comprising:

a surface extending substantially horizontally and proximate to said water, said surface having an aperture therein; and

a water-tight housing defining an interior adapted to hold said electronic equipment, said housing being positioned in alignment with said aperture and movable between a first position beneath said surface and a second position projecting above said surface, said housing having a top larger in size than said aperture and comprising a sealing area facing said surface, said sealing area being engageable with said surface to effect a seal around the perimeter of said aperture thereby keeping water from said interior when said housing is in said first position beneath said surface.

2. A sealing system according to Claim 1, further comprising a rib positioned surrounding said aperture on said surface and projecting outwardly therefrom, said sealing area having a complementary groove therein sized to accommodate said rib and thereby seal said aperture when said housing is in said first position beneath said surface.

3. A sealing system according to Claim 1, wherein said water-tight housing comprises a transparent sidewall.

4. A sealing system according to Claim 1, wherein said body of water comprises a spa for personal therapy by immersion of a person in said body of water, said spa comprising a tub adapted to hold said water and accommodate said person for immersion therein, said tub comprising a bottom and a plurality of sidewalls having an upper edge extending around said tub, said surface extending substantially horizontally from one of said sidewalls proximate to said upper edge.

5. A sealing system according to Claim 4, further including a mechanism for moving said housing comprising:

- a support column positioned beneath said surface;

- a carriage movably mounted on said support column for movement in a substantially vertical direction;

- a platform mounted on top of said carriage in alignment with said aperture, said water-tight housing being mounted on said platform and movable between said first and second positions upon movement of said carriage on said support column;

- a motor for raising and lowering said carriage; and

- a transmission system linking said motor with said carriage.

6. A sealing system according to Claim 5, wherein said transmission system comprises:

- a first pulley rotatably mounted on said support column;

- a second pulley rotatably mounted on said carriage;

a rotatable shaft powered by said motor and fixedly mounted beneath said surface; and

a cable fixedly attached at one end to said support column and engaging said first and said second pulleys, said cable being attached at another end to said rotatable shaft, turning of said shaft in one direction winding said cable about said shaft and drawing said cable over said first and second pulleys thereby moving said carriage upwardly on said support column, turning of said shaft in an opposite direction unwinding said cable from said shaft and allowing movement of said carriage downwardly under gravity on said support column.

7. A mechanism for raising and lowering a platform, said mechanism comprising:

a first support column;

a first carriage movably mounted on said first support column for movement in a substantially vertical direction;

a first platform mounted on top of said carriage;

a first pulley rotatably mounted on said first support column;

a second pulley rotatably mounted on said first carriage;

a motor;

a rotatable shaft powered by said motor;

a control system for controlling said motor;

and

a cable fixedly attached at one end to said support column and engaging said first and said second pulleys, said cable being attached at another end to said rotatable shaft, turning of said shaft in one

direction winding said cable about said shaft and drawing said cable over said first and second pulleys moving said carriage upwardly on said support column, turning of said shaft in an opposite direction unwinding said cable from said shaft and allowing movement of said carriage downwardly under gravity on said support column.

8. A mechanism according to Claim 7, further comprising:

a second support column;

a second carriage movably mounted on said second support column for movement in a substantially vertical direction;

a second platform mounted on top of said second carriage;

a third pulley rotatably mounted on said second support column;

a fourth pulley rotatably mounted on said second carriage;

a fifth pulley rotatably mounted and fixed in position between said first and second support columns; and

a second cable fixedly attached at one end to said second support column and engaging said third, said fourth and said fifth pulleys, said cable being attached at another end to said first carriage, motion of said first carriage upwardly drawing said second cable over said third, fourth and fifth pulleys and moving said second carriage upwardly on said second support column, motion of said first carriage downwardly allowing movement of said second carriage downwardly under gravity on said second support column.

9. A mechanism according to Claim 8, further including a motion limiting device comprising:

a first sensor in communication with said control system and capable of generating a signal indicative of a cable tension less than a first predetermined level;

a second sensor in communication with said control system and capable of generating a signal indicative of a cable tension greater than a second predetermined level; and

a movable member engaged with said cable and movable into a first position in engagement with said first sensor when tension in said cable is less than said first predetermined level, and into a second position in engagement with said second sensor when tension in said cable is greater than said second predetermined level, engagement of said movable member with either of said first and said second sensors causing a signal to be generated and communicated to said control system, said control system halting said motor in response to said signal.

10. A mechanism according to Claim 9, wherein said movable member comprises:

an elongated arm having one end positioned between said first and second sensors, said arm being pivotally mounted and allowing motion of said one end in a first direction into engagement with said first sensor, and in a second direction into engagement with said second sensor;

a biasing member for biasing said one end of said arm into engagement with one of said sensors; and

a pair of fixed pulleys rotatably mounted in respective fixed positions adjacent to said arm and a

movable pulley rotatably mounted on said arm, said fixed and said movable pulleys being adapted to engage said cable at a position between said carriage and said motor, said cable passing over one of said fixed pulleys, said movable pulley and the other of said fixed pulleys, whereby motion of said shaft lowering said housing to said first position causing tension in said cable to be less than said first predetermined value allowing said arm to be biased by said biasing member into engagement with one of said sensors, said one sensor generating said signal to said control system, said control system halting said motor in response thereto, motion of said shaft raising said housing into said second position resulting in tension in said cable greater than said second predetermined level thereby pivoting said arm against said biasing member into engagement with the other of said sensors, said other sensor generating a signal to said control system, said control system halting said motor in response thereto.